

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of performing image processing on an image synthesized from a natural image and a computer graphic (CG) image that has a single color, said method comprising the steps of:

~~providing a specification of first and second regions in said synthesized image, the first region comprising the natural image;~~

~~determining a color of pixels in the second region;~~

~~designating each pixel in the first region, which is judged to have the same color as the color of pixels in the second region, as being part of the CG image;~~

receiving designation of a region containing a natural-image region in the synthesized image;

temporarily dividing the designated region into the natural-image region and a CG-image region by extracting from the designated region pixels that have the same color as the color contained in a region of the synthesized image, the region of the synthesized image being other than the designated region;

~~separating-dividing said synthesized image into a-the natural-image region and a-the CG-image region, wherein said separating includes removing from the first region the pixels designated as part of the CG image wherein~~

when a first small region composed of pixels having the same color as the color contained in the region other than the designated region is present in the natural-image region into which the designated region has been temporarily divided, if the size of the first small region is greater than or equal to a first threshold value, the first small region is classified as part of the CG-image region, and

when a second small region composed of pixels having a color different from the color contained in the region other than the designated region is present in the CG-image region into which the designated region has been temporarily divided, if the size of the second small region is greater than or equal to a second threshold value, the second small region is classified as part of the natural-image region;

computing an image-processing parameter for said image processing, based on said natural-image region;

acquiring an intermediate image by performing said image processing on said synthesized image, based on said image-processing parameter; and

acquiring a processed image by synthesizing said natural-image region contained in said intermediate image and said CG-image region contained in said synthesized image.

2. (Original) The method as set forth in claim 1, wherein a boundary portion between said natural-image region and CG-image region contained in said synthesized image is blurred and then said CG-image region in said synthesized image and said natural-image region in said intermediate image are synthesized.

3. (Original) The method as set forth in claim 1, wherein said synthesized image is obtained by reading out synthesized image data from a storage medium.

4. (Canceled)

5. (Currently Amended) The method as set forth in claim 1, wherein said separated divided natural image and CG image are displayed.

6. (Original) The method as set forth in claim 1, wherein
a maximum rectangular region that is inscribed in said natural-image region is set; and
said image-processing parameter is computed based on an image within said maximum rectangular region.

7. (Currently Amended) An image processor for performing image processing on an image synthesized from a natural image and a computer graphic (CG) image that has a single color, said image processor comprising:

separation means for ~~separating~~ dividing said synthesized image into a natural-image region and a CG-image region, wherein

~~first and second regions are specified for said synthesized image, the first region comprising the natural image,~~

~~each pixel in the first region, which is judged to have the same color as pixels in the second region, is designated as being part of the CG image,~~

~~and the separation of the synthesized image includes removing from the first region the pixels designated as part of the CG image;~~

designation is received of a region containing the natural-image region in the synthesized image,

the designated region is temporarily divided into the natural-image region and the CG-image region by extracting from the designated region pixels that have the same color as the color contained in a region of the synthesized image, the region of the synthesized image being other than the designated region, and

said synthesized image is divided into the natural-image region and the CG-image region, wherein

when a first small region composed of pixels having the same color as the color contained in the region other than the designated region is present in the natural-image region into which the designated region has been temporarily divided, if the size of the first small region is greater than or equal to a first threshold value, the first small region is classified as part of the CG-image region, and

when a second small region composed of pixels having a color different from the color contained in the region other than the designated region is present in the CG-image region into which the designated region has been temporarily divided, if the size of the second small region is greater than or equal to a second threshold value, the second small region is classified as part of the natural-image region

parameter computation means for computing an image-processing parameter for said image processing, based on said natural-image region;

processing means for acquiring an intermediate image by performing said image processing on said synthesized image, based on said image-processing parameter; and

synthesis means for acquiring a processed image by synthesizing said natural-image region contained in said intermediate image and said CG-image region contained in said synthesized image.

8. (Original) The image processor as set forth in claim 7, wherein said synthesis means blurs a boundary portion between said natural-image region and CG-image region contained in said synthesized image and then synthesizes said CG-image region in said synthesized image and said natural-image region in said intermediate image.

9. (Original) The image processor as set forth in claim 7, further comprising read-out means for obtaining said synthesized image by reading out synthesized image data from a storage medium.

10. (Canceled)

11. (Currently Amended) The image processor as set forth in claim 7, further comprising display means for displaying said ~~separated~~divided natural image and CG image.

12. (Original) The image processor as set forth in claim 7, wherein said parameter computation means sets a maximum rectangular region that is inscribed in said natural-image region, and computes said image-processing parameter, based on an image within said maximum rectangular region.

13. (Currently Amended) A system for performing image processing on an image synthesized from a natural image and a computer graphic (CG) image that has a single color, said system comprising:

~~a device configured to specify a first and second region in said synthesized image, the first region comprising the natural image;~~

a device configured to receive designation of a region containing a natural-image region in the synthesized image;

a device configured to temporarily divide the designated region into the natural-image region and a CG-image region by extracting from the designated region pixels that have the same color as the color contained in a region of the synthesized image, the region of the synthesized image being other than the designated region;

a device configured to ~~separate-divide~~ said synthesized image into a ~~the~~ natural-image region and a CG-image region, wherein by:

———determining a color of pixels in the second region;
———designating each pixel in the first region, which is judged to have the same color as the color of pixels in the second region, as being part of the CG image; and

———removing from the first region the pixels designated as part of the CG image;
when a first small region composed of pixels having the same color as the color contained in the region other than the designated region is present in the natural-image region into which the designated region has been temporarily divided, if the size of the first small region is greater than or equal to a first threshold value, the first small region is classified as part of the CG-image region, and

when a second small region composed of pixels having a color different from the color contained in the region other than the designated region is present in the CG-image region into which the designated region has been temporarily divided, if the size of the second small region is greater than or equal to a second threshold value, the second small region is classified as part of the natural-image region;

a device configured to compute an image-processing parameter for said image processing, based on said natural-image region;

a device configured to acquire an intermediate image by performing said image processing on said synthesized image, based on said image-processing parameter; and

a device configured to acquire a processed image by synthesizing said natural-image region contained in said intermediate image and said CG-image region contained in said synthesized image.

14. (Previously Presented) The system as set forth in claim 13, wherein said device configured to acquire the process image employs a procedure of blurring a boundary portion between said natural-image region and CG-image region contained in said synthesized image and then synthesizing said CG-image region in said synthesized image and said natural-image region in said intermediate image.

15. (Previously Presented) The system as set forth in claim 13, further comprising a device configured to obtain said synthesized image by reading out synthesized image data from a storage medium.

16. (Canceled)

17. (Currently Amended) The system as set forth in claim 13, further comprising a device configured to display said ~~separated~~ divided natural image and CG image.

18. (Previously Presented) The system as set forth in claim 13, wherein said parameter computation procedure is a procedure of setting a maximum rectangular region that is inscribed in said natural-image region, and computing said image-processing parameter, based on an image within said maximum rectangular region.

19. (Currently Amended) A computer readable storage device having recorded therein a program for causing a computer to execute a method of performing image processing on an image synthesized from a natural image and a computer graphic (CG) image that has a single color, said program comprising:

~~a procedure of specifying a first and second region in said synthesized image, the first region comprising the natural image;~~

a procedure of receiving designation of a region containing a natural-image region in the synthesized image;

a procedure of temporarily dividing the designated region into the natural-image region and a CG-image region by extracting from the designated region pixels that have the same color as the color contained in a region of the synthesized image, the region of the synthesized image being other than the designated region;

a procedure of separating-dividing said synthesized image into a the natural-image region and a the CG-image region, wherein by:

—— determining a color of pixels in the second region,
—— designating each pixel in the first region, which is judged to have the same color as the color of pixels in the second region, as being part of the CG image, and

—— removing from the first region the pixels designated as part of the CG image;
when a first small region composed of pixels having the same color as the color contained in the region other than the designated region is present in the natural-image region into which the designated region has been temporarily divided, if the size of the first small region is greater than or equal to a first threshold value, the first small region is classified as part of the CG-image region, and

when a second small region composed of pixels having a color different from the color contained in the region other than the designated region is present in the CG-image region into which the designated region has been temporarily divided, if the size of the second small region is greater than or equal to a second threshold value, the second small region is classified as part of the natural-image region

a procedure of computing an image-processing parameter for said image processing, based on said natural-image region;

a procedure of acquiring an intermediate image by performing said image processing on said synthesized image, based on said image-processing parameter; and

a procedure of acquiring a processed image by synthesizing said natural-image region contained in said intermediate image and said CG-image region contained in said synthesized image.

20. (Original) The computer readable recording medium as set forth in claim 19, wherein said synthesis procedure is a procedure of blurring a boundary portion between said natural-image region and CG-image region contained in said synthesized image and then synthesizing said CG-image region in said synthesized image and said natural-image region in said intermediate image.

21. (Original) The computer readable recording medium as set forth in claim 19, wherein the program further comprises a procedure of obtaining said synthesized image by reading out synthesized image data from a storage medium.

22. (Canceled)

23. (Currently Amended) The computer readable recording medium as set forth in claim 19, wherein the program further comprises a procedure of displaying said ~~separated~~ divided natural image and CG image.

24. (Original) The computer readable recording medium as set forth in claim 19, wherein said parameter computation procedure is a procedure of setting a maximum rectangular region that is inscribed in said natural-image region, and computing said image-processing parameter, based on an image within said maximum rectangular region.